provide first-hour care in many rural and underserved communities. In particular, we have incorporated diagnostic ultrasonography into our daily practice of obstetrics-capable family practice and emergency medicine. Our family practice training programs are required to teach the residents and faculty these diagnostic ultrasonographic skills.

In our hands, the most frequent use for ultrasonography is in the diagnosis of pregnancy-related problems. For example, during the investigation of a possible ectopic pregnancy, our most frequent result is the documenting of a healthy intrauterine pregnancy. This allows for appropriate reassurance, discharge from the office or hospital, and follow-up. Among our patients, quality of care has been improved, costs have gone down, and patients are happy with the transfer of this technology into primary care. As others have said, the ultrasound machine will probably be the stethoscope of the 21st century.

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To the Editor: In response to the letter of Steven J. Sainsbury, MD,[1] regarding the use of ultrasonography by emergency physicians, several issues need to be addressed.

Currently most emergency physicians lack the expertise and training in the full range of ultrasound examinations and procedures and, in many instances, fail to meet the minimum criteria of the American Institute of Ultrasound in Medicine. This body requires, as a minimum, 500 diagnostic ultrasound examinations done and supervised in residency or, lacking that, evaluation, interpretation, and supervision by a qualified physician of 500 sonographic cases within a three-year period in a postdoctoral experience. Radiologists in all of their four years of residency training are specifically trained in sonographic imaging and have both written and oral examinations for board certification covering not only the diagnostic criteria, but the physics and instrumentation involved in sonography.

Most radiology practices have a full range of ultrasound equipment, including portable units that can be taken to the emergency department and trained technicians to meet the needs of the practice, which would need duplication if emergency physicians would also require the technology to fill only one niche of practice. Radiologists also have the means to dictate the reports, store the images for retrieval, and mechanisms in place to monitor and calibrate the equipment for optimal functioning. In addition, they are well versed in correlating the sonographic diagnoses against other diagnostic imaging studies.

On the other hand, radiologists need to be ready to fill the needs of emergency physicians in a timely manner and able to offer their services nights and weekends. In point of fact, most sonographic studies generated from the emergency department are not immediately life-threatening, such as pericardial tamponade, symptomatic aortic aneurysm, ectopic pregnancy with cardiovascular instability, and abdominal trauma. Most sonographic studies fall into a category of urgent but not immediately life-threatening, such as acute cholelithiasis or deep venous thrombosis.

Of concern to all those who do use ultrasound equipment is that if those who do it are not well trained to the nuances that exist and miss substantial disease, the imaging method loses credibility. For instance, it is not uncommon for the uninitiated examining the aorta for aneurysm to miss such things as retroperitoneal adenopathy, horseshoe kidney, and retroperitoneal fibrosis, all important considerations that may affect a patient's prognosis. Such misses also involve professional liability. Whereas an emergency physician may only wish to do a limited study, many incidental findings are the rule, and less-trained practitioners will not recognize them. A course or two on ultrasonography is no substitute for a rigorous training program with supervision by well-trained ultrasonographers.

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## Dr Sainsbury Responds

To the Editor: Dr Gooding is correct in pointing out that primary care providers, such as emergency physicians, who perform limited emergency ultrasonographic studies will consistently lack the expertise and experience of radiologists. To do a complete and comprehensive ultrasound examination is not the goal of emergency physicians. Our goal is to quickly recognize life-threatening conditions such as ectopic pregnancy, abdominal aneurysms, or pericardial tamponade. After